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# Occupational Health and Safety Issues for the Older Worker

Division of Epidemiology, Environmental and Occupational Health



## Background

Research into occupational injuries among older workers has been conducted. While some studies attribute occupational injuries to decline in vital functions (e.g., vision, hearing) and lower muscle mass, other researchers maintain that while some older workers may have decreased physical capacity, they may rely on resources such as superior technical skills, motivation, and improved workplace design to accomplish their tasks.<sup>1,2,3</sup> This latter view is partly supported by older workers' lower nonfatal injury rate, compared to that of younger workers.<sup>4</sup> However, some studies have shown that injuries experienced by older workers may be more severe.<sup>5</sup> Once injured or made ill on the job, older workers often take longer to recover and may have poorer outcomes.<sup>4,6</sup>

*This publication presents an overview of the health and safety issues faced by older workers, including general guidelines on how they can be protected.*

- ◆ *From 1996 to 2006, the number of workers over the age of 55 is expected to increase by 44%, while workers 25 to 54 years of age will only increase by 5%.<sup>7</sup> The New Jersey civilian labor force age 55 and older is anticipated to increase from 581,000 (13.9% of the total workforce) in 1998 to 808,900 (17.7% of the total workforce) in 2008.<sup>8</sup>*
- ◆ *Some of the reasons the number of working older adults is expected to increase include: obtaining financial resources for retirement, enjoyment of working, elimination of mandatory cut-off ages for retirement, and an increase in the minimum age for retirees to collect social security benefits.*
- ◆ *A total of 234 New Jersey workers age 55 years or older were the victims of fatal work-related injuries from 1991 to 2000. This age group comprised 20% of the 1,174 victims of fatal injuries over the 10-year period.*
- ◆ *As the population ages, and an increasing number of people in their late 50's, 60's, and 70's continue to work, their work-related illnesses and injuries can be limited through increased worker and employer education.*

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## Characteristics of Illnesses and Injuries

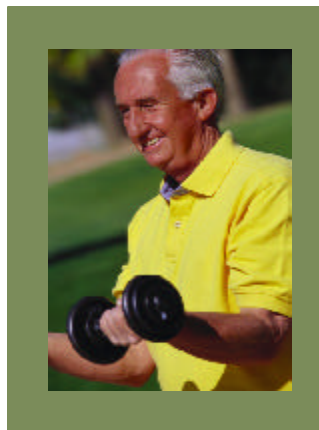
According to the New Jersey Census of Fatal Occupational Injuries, more workers age 55 and older (n=234) died than younger workers in three categories: transportation incidents (42% versus 34%), falls (18% versus 14%), and fires/explosions (6% versus 3%) from 1991-2000. The majority of the 234 fatal injuries in older workers during this period occurred in the occupations of Operators, Fabricators, and Laborers (34%), Precision Production, Craft, and Repair (23%), and Technical, Sales, and Administrative support (15%). Industry groups most affected were Construction (20%), Government (15%), and Transportation and Public Utilities (15%).

In 2001, a total of 160,231 injuries and illnesses in those age 55 and older in private industry nationwide required recuperation away from work beyond the day of the incident, according to the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Whereas there were 5,930 nonfatal occupational injuries and illnesses that resulted in lost worktime among workers age 55 and older in the New Jersey private sector. Most of these reports were in the occupational category of Operators, Fabricators, and Laborers. The industry division most affected was Services. The nature of injury/illness reported most frequently was sprains and strains. The source of injury/illness was floor and ground surfaces, and falls on the same level was the most common incident reported.

Also, in 2001, workers employed in New Jersey state and local government experienced a total of

2,189 nonfatal occupational injuries and illnesses involving days away from work. For these workers, most of the reports were in service occupations and in the Services industry. Like their private industry counterparts, the nature of injury/illness most reported was sprains/strains. The most frequent source of injury/illness was floor or ground surfaces. Falls on same level, overexertion, and contact with object and equipment were the most common incidents reported.

Furthermore, a BLS study on median days away from work - the key survey measure of severity - reported that older workers may sustain especially disabling conditions such as broken bones and multiple injuries more frequently than younger workers; and similar injuries, such as a fracture, requires a longer recuperation time for older workers. This study also indicated older workers became disabled by a fall more often than younger workers.<sup>9</sup>



## What Can the Older Worker Do?

Discuss medical conditions and your ability to work with your personal physician. Underlying medical conditions may put you at increased risk and susceptibility to injury.

Early detection and treatment of sensory impairments (hearing loss or visual impairment) can reduce your risk for injury.

Wellness plays a critical part – take steps to lower your risk of disease. Increase your knowledge about chronic diseases such as heart disease, cancer, diabetes, osteoporosis, and arthritis.

Understanding the role these conditions can play in increasing occupational injury is the first step toward reducing your risk of injury.

### Underlying Medical Conditions

Chronic diseases are among the most common and costly of all health problems, but they are also among the most preventable.

**Cardiovascular diseases** -- Heart disease and stroke are the first and third leading causes of death in the United States, respectively. More than 61 million Americans have some form of cardiovascular disease (CVD), including high blood pressure, coronary heart disease, stroke, congestive heart failure or other conditions.

#### **Risk Factors for CVD:**

- High blood pressure
- High cholesterol
- Tobacco use
- Physical inactivity
- Poor nutrition
- Overweight/obesity
- Diabetes

**Cancer** -- Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. Cancer is the second leading cause of death in the US, and about 1,334,000 new cancer cases

are likely to be diagnosed in 2003. Cancer screening for breast, cervical, and colorectal cancer can save lives.

#### **Risk Factors for Cancer:**

- Tobacco use
- Physical inactivity
- Obesity
- Poor nutrition
- Infectious exposure to hepatitis B virus (HBV), human papillomavirus, or human immunodeficiency virus (HIV)
- Exposure to ultraviolet radiation or other environmental hazards
- Exposure to carcinogens in the workplace

**Arthritis** -- Arthritis includes over 100 diseases of inflammation, pain, and limited joint mobility. Nearly 70 million Americans are affected by arthritis, the nation's number one cause of disability. Twenty-five percent of people with the disease report a reduced ability to work.

#### **Risk Factors for Arthritis:**

- Age (40 and older)
- Gender (women are more likely to develop)
- Overweight/obesity
- Joint injury, especially knee injury
- Ethnicity – African Americans, Native Americans and Caucasians have a higher incidence of certain types of arthritis.

**Diabetes** -- Diabetes is a disease in which the body does not produce or properly use insulin. Over 17 million Americans have diabetes; one-third do not know they have the disease. Warning signs include: frequent urination, excessive thirst,

extreme hunger, unusual weight loss, increased fatigue, and irritability or blurry vision.

#### **Risk Factors for Diabetes:**

- Age
- Overweight/obesity
- Family history of diabetes
- Physical inactivity
- Poor nutrition
- Ethnicity – African Americans, Latinos, Native Americans, Asian-Americans, and Pacific Islanders have an increased risk of diabetes.

**Osteoporosis** -- This 'silent disease' often has no symptoms or pain until a fracture occurs. Osteoporosis affects more than 44 million Americans age 50 and older. Half of all women and 20% of all men will have an osteoporosis-related fracture in their lifetime.

#### **Risk Factors for Osteoporosis:**

- Gender (women are more likely to have osteoporosis)
- Age (especially pre-menopausal women)
- Low body weight (less than 127 pounds)
- Family history of osteoporosis
- Ethnicity – Caucasians and Asians are more likely to develop osteoporosis
- Tobacco use
- Poor nutrition (low calcium intake)
- Heavy alcohol consumption
- Eating disorders
- Use of medications such as steroids

**Hearing Loss** -- Age-related hearing loss usually develops slowly, often worsens with age, and is

generally permanent. Most hearing loss can be helped with the use of individually prescribed fitted hearing aids.

#### **Risk Factors for Hearing Loss:**

- Workplace exposure to certain chemicals and prolonged exposure to loud noise from occupation or hobby
- Tinnitus and Meniere's disease
- Family history of hearing loss
- Diabetes
- High blood pressure and arteriosclerosis
- Tumor or blood clot that affects the hearing part of the brain or the auditory nerves
- Multiple sclerosis
- Trauma to the ear

**Vision Impairment** -- An estimated 42% of people age 52-64 have cataracts and another 1.6 million Americans over the age of 40 have glaucoma. Nearly half of all people with glaucoma do not know they have the disease. Comprehensive eye examinations evaluate functional status, assess eye health, and provide information about eye safety and visual performance.

#### **Risk Factors for Vision Impairment:**

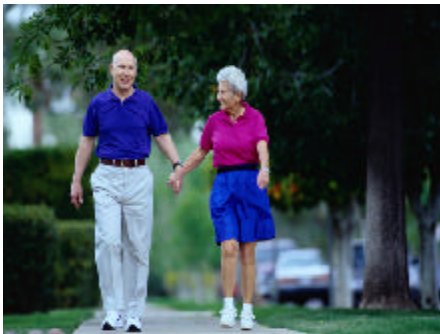
- Family history/genetics (African Americans and Hispanics are more likely to develop diabetic retinopathy. African Americans over the age of 40 are more at risk for glaucoma)
- Smoking
- Sun exposure



Lifestyle strongly determines how well we age. Health-damaging behaviors such as tobacco use, lack of physical activity, and poor eating habits are responsible for 70% of the decline associated with aging.

To maintain your vitality and a high quality of life, incorporate the following steps into your routine:

- Exercise about 30 minutes at least 4 or 5 times a week
- If you are overweight, reduce your caloric intake to lose weight
- Do not smoke
- Get 7 to 8 hours of sleep each night
- Limit alcohol consumption
- Eat 5 or more servings of fruits and vegetables each day
- Wear your seatbelt
- Get your annual flu shot and make sure your pneumonia vaccination is current
- Get regular physical, dental, and vision examinations
- Check with your physician and follow cancer screening guidelines for:
  - Breast and cervix (women)
  - Prostate (men)
  - Colon/rectal
  - Skin



## What Can the Employer Do?

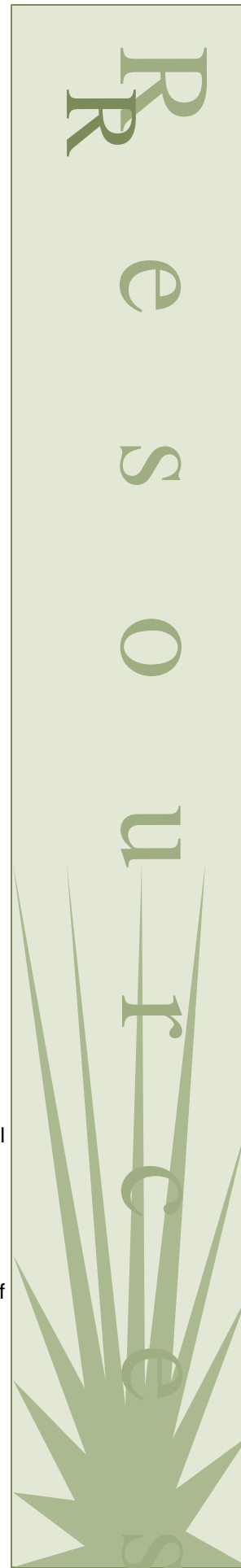
The federal Occupational Safety and Health Act and the New Jersey Public Employees Occupational Safety and Health Act were enacted to encourage employers to implement new or improve existing safety and health programs. Employers can take the following steps to protect the older worker from illness and injury:

- Conduct hazard communication training to increase employee awareness of the workplace environment and job risks.
  - Perform frequent monitoring to ensure the older worker can handle job tasks as well as when they started their job (especially if there have been changes in health status).
- Some medical conditions and medications may interact with occupational exposures and increase a person's susceptibility to adverse health effects. Occupational exposure limits should be used with the understanding that they may not provide adequate protection.
- Match worker ability to the job assignment even if the worker is disabled. The Americans with Disabilities Act (ADA) prohibits discrimination against qualified people with a disability who could perform the job, even if they need a "reasonable accommodation."
  - Incorporate wellness activities in the overall worksite employee health and safety program.
  - Maintain and update equipment or purchase new equipment



with safety features. This is especially important in preventing machine-related injuries.

- Provide personal protective equipment to reduce risk, such as slip-resistant shoes and respirators, when warranted. Install fall protection systems where needed. In most cases, the Occupational Safety and Health Administration (OSHA) standards require the use of fall protection when working above six feet.
- Allow older workers to work in shifts that decrease risk of injury. Schedule frequent breaks for people who are subject to repetitive motion injuries.
- Provide violence prevention training. This is particularly important for workers in convenience stores.
- Implement an effective hearing conservation program. Controlling noise by engineering and administrative methods is often the most effective means of reducing or eliminating the hazard. In some cases engineering controls will remove requirements for other components of the program, such as audiometric testing and the use of hearing protectors.



**Aging – National Institute on Aging**, (301) 496-1752; [www.nia.nih.gov/](http://www.nia.nih.gov/)

**Arthritis – National Arthritis Foundation**, New Jersey Chapter, (732) 283-4300; [www.arthritis.org](http://www.arthritis.org)

**Cancer: - American Cancer Society**, 1-800-ACS-2345; [www.cancer.org](http://www.cancer.org);  
- **National Cancer Institute**; [www.nci.nih.gov](http://www.nci.nih.gov)

**Cardiovascular Disease – CDC National Center for Chronic Disease Prevention and Health Promotion**; [www.cdc.gov/cv/aboutcardio.htm](http://www.cdc.gov/cv/aboutcardio.htm)

**Diabetes – American Diabetes Association**, New Jersey Chapter, (732) 469-7979; [www.diabetes.org](http://www.diabetes.org)

**Disabilities: - Americans with Disabilities (ADA) Technical Assistance Center**, (800) 949-4232; [www.disabilityact.com](http://www.disabilityact.com)  
- **Job Accommodation Network**, (800) 526-7324 (TDD); (800) 232-9675  
- **New Jersey Office of Disabilities Management**, (609) 292-7299

**Environmental and Occupational Health Sciences Institute Resource Center**, Rutgers University/University of Medicine & Dentistry of New Jersey, (732) 445-0110; [www.eohsi.rutgers.edu](http://www.eohsi.rutgers.edu)

**Hearing Loss, Vision Impairment – National Center on Birth Defects and Developmental Disabilities (NCBDDD)**; [www.cdc.gov/ncbddd/dd/ddvi.htm](http://www.cdc.gov/ncbddd/dd/ddvi.htm)

**NIOSH Technical Information Service**, 1-800-356-4674; [www.cdc.gov/niosh/inquiry.html](http://www.cdc.gov/niosh/inquiry.html)

**Occupational Health Service**, New Jersey Department of Health and Senior Services, (609) 984-1863; [www.state.nj.us/health/eoh/odisweb/](http://www.state.nj.us/health/eoh/odisweb/)

**OSHA, U.S. Department of Labor**; [www.osha.gov](http://www.osha.gov). Contact your local New Jersey OSHA Area Office as follows:  
- **Avenel Area Office**: Hunterdon, Middlesex, Somerset, Union, and Warren Counties, (732) 750-3270  
- **Hasbrouck Heights Area Office**: Bergen and Passaic Counties, (201) 288-1700  
- **Marlton Area Office**: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Mercer, Monmouth, Ocean, and Salem Counties, (856) 757-5181  
- **Parsippany Area Office**: Essex, Hudson, Morris, and Sussex Counties, (973) 263-1003

**Osteoporosis – National Osteoporosis Foundation**, (202) 223-2226; [www.nof.org](http://www.nof.org)

**Poison Control Center (NJPIES)** phone lines are open 24 hours a day, 7 days a week. Call 1-800-222-1222; [www.njpies.org](http://www.njpies.org)

**Public Employees Occupational Safety and Health (PEOSH)**  
- **Health Issues** - New Jersey Department of Health and Senior Services, PEOSH Program, (609) 984-1863; [www.state.nj.us/health/eoh/peoshweb/](http://www.state.nj.us/health/eoh/peoshweb/)  
- **Safety Issues, Recordkeeping and Discrimination Complaints** - New Jersey Department of Labor, PEOSH Program, (609) 633-3896; [www.state.nj.us/labor/lasse/lspeosh.html](http://www.state.nj.us/labor/lasse/lspeosh.html)

**Smoking – CDC Office on Smoking and Health**, 1-800-CDC-1311; [www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)

**Wellness – New Jersey Department of Health and Senior Services**, (609) 943-3498; [www.state.nj.us/health/senior/](http://www.state.nj.us/health/senior/)

**Workers' Compensation – Workers who are injured on the job may be entitled to workers' compensation to help cover the cost of medical bills and lost income. Division of Workers' Compensation, New Jersey Dept. of Labor**, (609) 292-2516; [www.nj.gov/labor/wc/wcindex.html](http://www.nj.gov/labor/wc/wcindex.html)

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2. Wegman DH. Older Workers. Occupational Medicine 14:3537-557.
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4. Laflamme L and Menckel E. The Age Related Risk of Occupational Accidents: The Case of Swedish Iron Ore Miners. 28:349-357.
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|--|---|
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***Describe how thoroughly you read this publication:***

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- |  |  |   |
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|--|--|---|

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| <input type="radio"/> Use in employee training | <input type="radio"/> Will not use              |
| <input type="radio"/> Change a procedure       | <input type="radio"/> Other (specify) _____     |

***Other comments and suggestions:***

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